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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/081,816	02/22/2002	Richard Axel	0575/64019-A/JPW/ADM	1776
7590 Cooper & Dunham LLP 1185 Avenue of the Americas New York, NY 10036			EXAMINER ULM, JOHN D	
			ART UNIT 1649	PAPER NUMBER
			MAIL DATE 04/14/2008	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/081,816	Applicant(s) AXEL ET AL.	
	Examiner John D. Ulm	Art Unit 1649	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 59-73 is/are pending in the application.
- 4a) Of the above claim(s) 63 and 64 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 59-62 65-73 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>2/5/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1) Claims 59 to 73 are pending in the instant application. Claims 59, 62 and 65 have been amended, and claims 57 and 58 have been canceled as requested by Applicant in the correspondence filed 05 February of 2008.

2) Any objection or rejection of record that is not expressly repeated in this action has been overcome by Applicant's response and withdrawn.

3) The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Continued Examination Under 37 CFR 1.114

4) A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 08 January of 2007 has been entered.

Election/Restrictions

5) Claims 63 and 64 stand withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 101

6) Claims 59 to 62 and 65 to 73 stand rejected under 35 U.S.C. § 101 because they are drawn to an invention with no apparent or disclosed specific and substantial credible utility for those reasons of record as applied to claims 57 to 62, 65

to 69, 71 and 72 in section 3 of the office action mailed 13 June of 2005. As stated therein, the instant claims are drawn to an isolated DNA encoding the elected species of protein identified therein as Gr63F1 (SEQ ID NO:12), a putative odorant receptor of insect origin, and the protein encoded thereby, which lack a specific and substantial utility in currently available form because the instant application does not identify a particular compound or class of compounds that activates or inhibit a Gr63F1 protein of the instant invention nor does it disclose with specificity the consequence of that activation or inhibition.

Applicant has traversed this rejection on the premise that the Jones, et al. publication (Two chemosensory receptors together mediate carbon dioxide detecting in *Drosophila*" Nature 445(7123):86-90 (Jan. 4, 2007)) establishes that the *Drosophila* receptor Gr63a and its homologs in other insects play a role in carbon dioxide detection. Applicant therefore asserts that, because blood-feeding insects locate hosts via detection of carbon dioxide, the Gr63a receptor and its homologs have great potential for developing methods of pest and disease control. Whereas the claimed invention certainly has a practical utility in view of the Jones et al. publication, Applicant can not rely upon Jones et al. to complete the instant specification.

The instant application has an effective filing date of 23 February of 2001. The Jones et al. publication was not available to the public until 04 January of 2007. It is a matter of law that an invention must have a specific and substantial utility "in currently available form", which precludes the need for further research, if that research is needed to establish a utility for the claimed invention subsequent to the filing of an

application for a patent on that invention (*Brenner v. Manson*, 148 U.S.P.Q. 689 (Sus. Ct, 1966)). Whereas Applicant can properly rely upon a patent or publication to establish that a practical utility **was known** for a claimed invention **at the time that an application was filed**, Applicant can not properly rely upon discoveries by themselves or others that are made subsequent to the filing of an application to establish or reasonably confirm a practical utility for a claimed invention. Whereas the disclosure by Jones et al. that a protein of the instant invention is critical to carbon dioxide detection in insects potentially supports a practical application for that protein, Applicant has failed to identify that portion of the instant specification, as filed, where Applicant had disclosed an established relationship between a GR63F1 protein of the instant invention and carbon dioxide detection in insects. It is clear that Applicant failed to disclose a specific, substantial; and credible utility for the claimed invention at the time that the instant application was filed, and Applicant can not now properly rely upon subsequent discoveries by others to complete the claimed invention.

Claim Rejections - 35 USC § 112

7) Claims 59 to 62 and 65 to 73 stand rejected under 35 U.S.C. § 112, first paragraph, as failing to adequately teach how to use the instant invention for those reasons given above with regard to the rejection of these claims under 35 U.S.C. § 101.

8) Applicant's arguments filed 05 February of 2008 have been fully considered but they are not persuasive.

9) This is a continuation of applicant's earlier Application No. 10/081,816. All claims are drawn to the same invention claimed in the earlier application and could have

been finally rejected on the grounds and art of record in the next Office action if they had been entered in the earlier application. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action in this case. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no, however, event will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John D. Ulm whose telephone number is (571) 272-0880. The examiner can normally be reached on 9:00AM to 5:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Stucker can be reached on (571) 272-0911. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 1649

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/John D. Ulm/

Primary Examiner, Art Unit 1649